

THE DROUGHT IN THE MERAMEC, ARKANSAS, AND RED RIVER DRAINAGE BASINS, SUMMER OF 1913.

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An unusually severe drought prevailed over the western portion of the lower Mississippi drainage basin during August, being a continuation of the droughty conditions which have prevailed to a greater or lesser extent since April.

For that portion of Kansas which lies in the Arkansas Valley there was an average of only two days with 0.01, or more, of precipitation during the month of August, and the average rainfall for this area during the month was only 0.48 inch. There was no rain, or only a trace, at eight stations, and the amounts exceeded 1 inch at only seven stations. Taking the precipitation during June, July, and August, the summer was the driest of any during the last 26 years. The Cottonwood, Neosho, and Verdigris Rivers were very low and most of the other streams were dry. The scarcity of water was a serious problem at the close of the month, and the ground was so dry and hard that preparations for crops were suspended. The foliage of trees turned brown and the blue grass was dead. The heat and drought did not interfere with any interests except farming.

The average precipitation for Oklahoma was only 0.42 inch. Eighteen stations reported no rain, or only a trace, and more than 1 inch of precipitation occurred at only nine stations. In the central and western portions of the State all streams were nearly dry during the greater part of the month. "Hot winds" occurred almost daily in some sections of the State. The intensely hot and dry weather was disastrous to vegetation generally and seriously damaged all crops and proved fatal to a large percentage of growing and maturing vegetation. Most springs and many shallow wells failed, and the question of procuring water for stock and for domestic purposes had become a serious problem in many localities at the close of the month. Considering the State as a whole, this drought has been the most serious and dis-

astrous experienced since Oklahoma was opened for settlement.

In the Missouri area abnormally high temperature and severe drought prevailed from the latter part of April until the close of August. The only year with a drought comparing in severity with this was 1901, when there was nearly a total failure of farm crops.

Mr. John S. Hazen, local forecaster, Weather Bureau, Springfield, Mo., says:

The average temperature for August was 82° and the total precipitation was only 0.68 inch. This is the highest mean temperature and the least precipitation for any August since the station was established. The accumulated excess in mean temperature since the 1st of April is 450° and the total deficiency in precipitation is 12.04 inches. This condition, taken in connection with the fact that since 1910 there has been a deficiency in precipitation of about 40 inches, has brought about unprecedented conditions. Wells have failed and springs and streams never before known to go dry are absolutely devoid of water. The use of the city water has been curtailed, except for absolute necessities. The danger of fire has become a serious menace, and fire patrols have been established. Thousands of trees have died and many more will succumb. The leaves in many localities are dried and withered as if the trees were girdled or the branches cut off. Grass is as dry as in midwinter. Some orchardists are watering apple trees in an effort to save the crop, but prospects are poor for more than 10 per cent of the average yield. Unless rain occurs soon it will be impossible to plow for fall grain. Stock is entirely on dry feed, and there is no prospect for any fall pasture.

In Arkansas the weather was the driest experienced in August during the last 23 years except in 1909. From the 4th to 8th no rain occurred and the last eight days of the month were nearly rainless. At 24 out of 53 stations rain occurred on only one or two days. There was less than 1 inch of precipitation at most stations in the western portion of the State, where droughty conditions and excessively high temperatures injured growing crops in many localities.

The drought in that part of Texas lying in the Red River Valley was one of the most severe of record. The sunshine was excessive. Precipitation amounting to 0.01 inch or more occurred on only two days, and the average for the area was but 0.58 inch. Crops suffered generally.